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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

POON, KING Y

ART UNIT PAPER NUMBER

2624

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/517,149	Applicant(s) HORII, MINORU	
	Examiner King Y. Poon	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 24-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 24-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/28/2004 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-18, 25-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 1, 4, 7, 10, 13: The limitations of "generates second print data for a frame image obtained by arranging second entire images including an image based on the present setting of several kinds of images obtained by applying image processing settings that are different from each other to said first image, in a predetermined arrangement pattern" are subject matter which was not described in the

specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 16, 17, 18: Claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 16, 17, 18 are rejected under 35 U.S.C. 112, first paragraph because they depends on rejected claims 1, 4, 7, 10, 13.

Regarding claim 25: The limitations of "selecting a preferred image from among the images printed on the printing medium" are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 26: The limitations of "selecting parameter values to adjust parameters of the preferred image" are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 27: The limitations of "processing the preferred image according to the selected parameter values" are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 28: The limitations of “printing the processed preferred image along with at least one image processed according to parameter values different from, but related to, the selected parameter values” are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 29: The limitations of “repeat the step of: selecting a preferred image from among the images printed on the printing medium; selecting parameter values to adjust parameters of the preferred image; processing the preferred image according to the selected parameter values; printing the processed preferred image along with at least one image processed according to parameter values different from, but related to, the selected parameter values; until a desired image is produced” are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 30: The limitations of “wherein the image processor generates an entire first image based on parameter values input to the operation input unit and at least one entire second image based on parameter values related to the parameter values input to the input unit.” are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 31: Claim 31 is under 35 U.S.C. 112, first paragraph rejected because it depends on rejected claim 30.

Regarding claim 32: The limitations of “wherein a selected image and new parameter values are input to the operation input unit based upon the printed entire first image and the at least one entire second image” are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 33: The limitations of “wherein the image processor processes the selected image with the new parameter values, and generates at least one entire third image, based on the input new parameter values” are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 34: The limitations of “wherein the printing unit prints the entire processed selected image and the at least one entire third image on a printing medium” are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1: The limitation of "said image" found in line 12 is not clear what image the "said image" is referring to. For example, said image could refer to the first image, one of the second entire images, the frame image etc.

Regarding claim 4: The limitation of "said image" found in line 14 is not clear what image the "said image" is referring to. For example, said image could refer to the first image, one of the second entire images, the frame image etc.

Regarding claim 7: The limitation of "said image" found in line 12 is not clear what image the "said image" is referring to. For example, said image could refer to the first image, one of the second entire images, the frame image etc.

Regarding claim 10: The limitation of "said image" found in line 14 is not clear what image the "said image" is referring to. For example, said image could refer to the first image, one of the second entire images, the frame image etc.

Regarding claim 13: The limitation of "said image" found in line 13 is not clear what image the "said image" is referring to. For example, said image could refer to the first image, one of the second entire images, the frame image etc.

Regarding claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 16, 17, 18: Claims 2, 3, 5, 6, 8, 9, 11, 12, 14, 15, 16, 17, 18 are rejected under 35 U.S.C. 112, first paragraph because they depends on rejected claims 1, 4, 7, 10, 13.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 24-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuboi et al (US 4,958,221).

Regarding claim 24: Tsuboi teaches a method of printing an image comprising: processing image data (image of EA, fig. 5, column 8, lines 40-50) according to a predetermined first image process (column 8, lines 50-55) based on a present settings to form a first processed image (m1, y1, c1, fig. 7, column 8, lines 37-68, column 9, line 1); processing the image data according to at least one other second image process (e.g., y0, m0, c0, column 9, lines 1-30) to produce at least one second processed image; printing the entire first processed image and the entire at least one other second processed image in a predetermined pattern (fig. 7) on a recording medium (column 9, line 1).

Regarding claim 25: Tsuboi teaches selecting a preferred image from among the images printed on the printing medium (e.g., selecting c1, m1, y1, as standard, column 1, lines 1-30, or selecting y2, m2, c2, as standard, column 10, lines 1-35, based on value n).

Regarding claim 26: Tsuboi teaches selecting parameter values (choosing a positive a_0 , column 9, lines 1-40, or negative a_0) to adjust parameters (c_1 , y_1 , m_1 , column 9, lines 1-30) of the preferred image.

Regarding claim 27: Tsuboi teaches processing the preferred image according to the selected parameter values (column 9, lines 15-30).

Regarding claim 28: Tsuboi teaches printing (fig. 7) the processed preferred image along with at least one image processed according to parameter values (e.g., negative a_0 , column 9, lines 15-30) different from, but related to, the selected parameter values.

Regarding claim 29: Tsuboi teaches repeating the step (the step is to be performed 2 times when $n=3$, and 3 times when $n=4$, column 9) of: selecting a preferred image from among the images printed on the printing medium (e.g., selecting c_1 , m_1 , y_1 , as standard, column 1, lines 1-30, or selecting y_2 , m_2 , c_2 , as standard, column 10, lines 1-35, based on value n); selecting parameter values (choosing a positive a_0 , column 9, lines 1-40, or negative a_0) to adjust parameters (c_1 , y_1 , m_1 , column 9, lines 1-30) of the preferred image; processing the preferred image according to the selected parameter values (column 9, lines 15-30); printing (fig. 7) the processed preferred image along with at least one image processed according to parameter values (e.g., negative a_0 , column 9, lines 15-30) different from, but related to, the selected parameter values; until a desired image is produced (user can input the values of $n=3$, 4, etc, column 9, lines 30-40, column 8, lines 29-30)

Regarding claim 30: Tsuboi teaches a printer (digital copy machine, column 7, line 8) comprising: an operation input unit (column 7, lines 25-41); and image processor (column 7, lines 53-65); and a printing unit (column 5, lines 10-15); wherein the image processor generates an entire first image (c1, m1, y1, column 9, lines 1-30 of the entire area of EA, column 8, lines 58-50) based on parameter values (n, column 8, lines 60-68) input to the operation input unit and at least one entire second image (the image formed by c2, m2, y2, column 9, lines 1-30) based on parameter values (e.g., c2, y2, m2, column 9, lines 1-15) related to the parameter values input to the input unit.

Regarding claim 31: Tsuboi teaches wherein the printing units prints the entire first image (the entire EA image of c1, y1, m1, column 9, lines 1-30) and the at least one entire second image (the entire EA image of c2, y2, m2, column 9, lines 1-30) on a printing medium.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuboi (US 4,958,221).

Regarding claim 32: Tsuboi teaches select image (EA, fig. 5) and new parameter (n, column 8, lines 50-65, column 9, lines 30-40) values, based on printed images (document, column 4, lines 35-45)

Tsuboi does not teach the selected image is the entire first and at least one of the second images.

However, Tsuboi teaches to select (column 8, lines 35-50, fig. 5) images printed on a paper (column 4, lines 44-56), to form the images of fig. 7, for monitoring the printed images qualities for reprinting.

Since the images of fig. 7 is printed on a copy paper; column 9, line 1; it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified Tsuboi by selecting and monitoring images of the first image and at least one of the second images formed on the copy paper with the first and the second images, such that Tsuboi's invention would be used in all situation-including the monitoring of images printed on a recording medium by the printer of Tsuboi to fully utilize Tsuboi's invention.

Regarding claim 33: Tsuboi teaches wherein the image processor processes the selected image with the new parameter values, (column 9) and generates at least one entire third image (fig. 7), based on the input new parameter values.

Regarding claim 34: Tsuboi teaches wherein the printing unit prints (fig. 7) the entire processed selected image and the at least one entire third image on a printing medium (column 9, line 1).

Response to Arguments

10. Applicant's arguments filed on 10/28/2004 have been fully considered but they are not persuasive.

With respect to applicant's argument that claims 25-34 is supported by fig. 2, and the applicant requested the examiner specifically pointed out what language is not supported.

In reply: The detailed office action has specifically pointed out what language is not supported by the specification.

For example, regarding claim 25: The limitations of "selecting a preferred image from among the images printed on the printing medium" are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

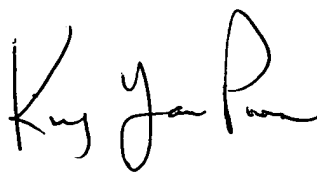
After careful examining fig. 2, the examiner cannot locate the word "select" and the word "preferred image." The applicant is required to show what step is the select step and what image is the preferred image.

In the event of an appeal, the applicant is reminded that: for each rejection under 35 USC 112, first, the applicant shall specify the error in the rejection and HOW the first paragraph of 35 USC 112 is complied with, including as appropriate, HOW the specification and drawing, if any, describe the subject matter defined by the rejected claims. See MPEP 1206.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

January 26, 2005

A handwritten signature in black ink, appearing to read 'King Y. Poon', written in a cursive style.

**KING Y. POON
PRIMARY EXAMINER**